



Stroman et al.

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[54] CONTINUOUS CONVEYOR BELT

5,482,166	1/1996	Brown .....	209/639 X
5,543,015	8/1996	Jermo .....	162/358.4

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## OTHER PUBLICATIONS

[73] Assignee: **Key Technology, Inc.**, Walla Walla, Wash.

Excerpts from KVP Systems, Inc., Rancho Cordova, CA 95670, brochure, "Innovators of Engineered Plastic Conveyor and Material Handling Components".

[21] Appl. No.: **08/857,102**

Excerpts from Intralox brochure, Series 600, 2-24 Product Line, Intralox System, Series 400, 500, 600, Series CC40 belt, all plastic modular conveyor belts.

[22] Filed: **May 15, 1997**

Loctronic Graders Limited, Danbury, Chelmsford, Essex, England, brochure "The Loctronic Autoselector".

[51] **Int. Cl.<sup>6</sup>** ..... **B07C 5/00**

Series 40, "Belt Accessories—Special Belts" CC40.

[52] U.S. Cl. .... 209/639; 209/644; 209/923;  
198/850

[58] **Field of Search** ..... 209/639, 644,  
209/587, 577, 912, 923, 939; 198/339.1,  
850, 851, 831

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[56] **References Cited**

## U.S. PATENT DOCUMENTS

979,200	12/1910	Prosser .	
1,484,248	2/1924	Austin .	
3,641,831	2/1972	Palmaer .....	74/250 C
3,826,150	7/1974	Palmaer .....	74/250
4,313,535	2/1982	Carmichael .....	198/766
4,723,660	2/1988	Sjoberg .....	209/622
4,742,907	5/1988	Palmaer .....	198/831
4,901,861	2/1990	Cicchelli .....	209/539
4,901,866	2/1990	Barella .....	211/1.3
5,069,330	12/1991	Palmaer et al. ....	198/778
5,090,576	2/1992	Menten .....	209/639 X
5,167,771	12/1992	Sayers et al. ....	162/358.4
5,181,601	1/1993	Palmaer et al. ....	198/831
5,224,583	7/1993	Palmaer et al. ....	198/779
5,253,749	10/1993	Ensch .....	198/850
5,339,965	8/1994	Klukis et al. ....	209/639
5,431,289	7/1995	Hoffman .....	209/639 X

[57] **ABSTRACT**

A continuous conveyor belt for transporting a stream of objects to an inspection station includes a plurality of links matingly joined together to form a surface for supporting the objects for movement along a given path of travel to the inspection station, and wherein the continuous conveyor belt is entrained between a drive roller and a nose bar which has a given diametral dimension, and wherein the continuous conveyor belt propels the objects into free flight and in a given pattern through a sorting station which is disposed downstream of, and in spaced relation relative to the nose bar, and wherein the individual links when passing about the nose bar effectively minimizes the size of the object pattern passing through the sorting station, while simultaneously maintaining product separation which permits imaging of substantially the entire surface area of each product.

**46 Claims, 7 Drawing Sheets**

